South Bay Users Group

Contents Copyright SBUG 1986

DYNAMIC MEMORIES

NOVEMBER

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
		1	2	3	4	5
6	7	8 MEETING DATE	9	10	11	12

Contents

3. FINANCIAL REPORT by Henry Schulze
4. PERFECTING WORD by Editor
7. WP COMES THROUGH by Editor
8. IN THE MAIL by Editor
11. PLEASANTON & SAN MATEO SWAP MEETS by Frank GOTTSCHALK
12. HARD DISK MANAGEMENT--PART III by Dean Severns
14. BUYING, USING, AND OPTIMIZING THE HARD DISK
by Lewis Perdue--Second in a 3 part series from COMPUTER CURRENTS

Look! Pay attention! The next SBUG meeting will be held at the Saratoga Library. The meeting dates will be as follows: November 8th, December 13th and January 10th.

The time of the meetings is constant: 19:15 otherwise known as seven fiftenn P. M.

COMING EVENTS: Will there be elections? Will the club continue. Heavy hemming and hawing, rancorous, rabid raving, incisive insights, all of this may be expected.

****

MEMBERSHIP

If you wish to become a member of SBUG and start receiving our newsletter DYNAMIC MEMORIES then send a $20 check or money order to the following address:

SOUTH BAY USERS' GROUP
P. O Box 60116
Sunnyvale, CA 94088

Or come to one of our meetings. We also perpetrate a bulletin board to which you will have access as a member of SBUG.

SBUG STEERING COMMITTEE

TITLE	NAME	USERNAME	PHONE
Chairman:	Chris Oman	OMAN	(408) 985-9460
Treasurer:	Henry Schulze	HENRY	(408) 866-5731
Editor:	Joel Lee	EDITOR	(408) 926-3999
Librarian:	Bernie Thompson	BERNIE	(408) 867-7455
Librarian:	Frank Gottschalk	FRANK	(415) 651-2313
Sysops:	Wright Huntley	WRIGHT	
	Jim Gonsalves		(408) 241-9347
Technik:	Frank Vanslager		(408) 257-3647

OTHER KEY INDIVIDUALS: Cover designer: Wright Huntley

Host computer: SBUG ALL (408) 249-8259

If the need arises feel free to give anyone of us a call.

==========

THE EDITOR'S BYTES AND BITES

ARE WE OR AREN'T WE?

We didn't quite decide at the last meeting. One of the better suggestions was that those who wish should join another club, probably Silicon Valley but that we continue meeting. Implicitly the newsletter and the bulletin board would be dropped. They just add up to too much work for the people who turn them out.

I was repeatedly thanked and praised for my efforts with the newsletter. I appreciate that, but we might also remember Bernie's lost lunch hours printing it plus the stamping, collating and stapling; time consuming and boring work. No one has thanked Henry for his jealous guardianship of the club's funds. Thank you, Henry. No one has thanked Chris for the hours he has spent organizing meetings, getting speakers for these meetings, and the help he has given us together and severally on hardware and software problems. Thank you, Chris.

continued on page 10

SBUG Financial Statement
October 20, 1988

Receipts:	October	Y-T-Date	% Used	Budget
Members dues	20.00	200.00	25.00%	800.00
Disk Library	12.00	107.00	71.33%	150.00
Load80	0.00	40.00	13.33%	300.00
Documentation	0.00	0.00	0.00%	25.00
Interest	0.00	26.79 *	107.16%	25.00
Miscellaneous	0.00	60.00	30.00%	200.00
Total Receipts	32.00	433.79	28.92%	1500.00
Disbursements:				
Phone	7.58	95.87	63.91%	150.00
Utilities	0.00	0.00	0.00%	120.00
Printing	0.00	0.00	0.00%	100.00
Postage	0.00	72.00	55.38%	130.00
P O Box	0.00	39.00	134.48%	29.00
Bank charges	5.00	10.00	41.67%	24.00
Disk Library	0.00	0.00	0.00%	120.00
Documentation	0.00	0.00	0.00%	50.00
Load80 Subscription	0.00	0.00	0.00%	150.00
SBUG BBS Repairs	0.00	0.00	0.00%	100.00
Misc. Expenses	0.00	69.00	55.20%	125.00
Total Disbursements	12.58	285.87	26.04%	1098.00
Beginning Cash Balance	828.52	700.02	103.86%	674.02
Net Receipts	19.42	147.92	36.80%	402.00
Ending Balance	847.94	847.94	78.80%	1076.02

*This amount includes $2.17 received in 1987 but posted in 1988.

==========

I have someone interested in a Model III, if you have one which is for sale, call me at (408) 867 7455. Bernie Thompson.

PERFECTING WORD
by Editon

This is not the final, probably not the semifinal, possibly the quarter final? word about Word Perfect. I have gotten some things straightened out, some by brute strength, some by a cunning I didn't know I had. Yes, I'll tell you all about both my brute strength as well as my cunning.

As you may remember I had a lot of trouble with words running together when I first began with 5.0. I finally found that if I first used Standard printer and then either Epson or IBM Propriner that the problem went away. This WAS a program to program solution. Now it has become a permanent solution and it puzzles me that it should have happened and how it happened. Question not from whence the manna comes, assuage your hunger and be grateful.

I finally got WPSO to print out 11 inches wide. There were two points to this one. My Epson printer is IBM compatible. WPSO has the Epson EX 800 on its printer list but not my EX 1000 which is the wide carriage version. WPSO DOES however have the IBM Propriner XL on its list and that is a wide carriage printer. For a wide carriage command to work the printer selected must be a wide carriage printer. Can't argue with that. The next point took me a while. There are 5 steps to go through to do wide carriage printing. I got that after too many mistakes and careful reading of my 3 manuals (always helpful the 3 manual approach). It still wasn't working. I finally did get it working, but wasn't quite sure how. It occurred to me to go to reveal codes and there was the answer. I had a quarter of a page of wide carriage commands under "reveal codes". My problem was that just as with "center page" the order to go to wide carriage must be given when the cursor is at the very beginning of the text, not even one letter afterwards.

One of the things that keeps WPSO from really being a desktop publishing program is its lack of fonts. They are available if you have a laser but humble folk like us don't have lasers. I do have a program called NICE PRINT which gives me access to several fonts.

These are:

Native (prints in the word processor font)
- Roman
- Sans Serif
- Orator
- Script
- Computer
- Olde English

All of these may be had in:

Pica

Condensed large

Elite large

Pica large

Condensed

Elite

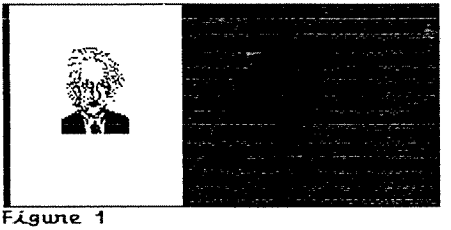


Figure 1
Where were you when we needed you?

There's a lot more but I already wrote about that when I did a review of the program. In any case it's a program that will put some pizazz into WPSO, it gives it the fonts that any desktop publisher should have.

I have also gotten the "Library" upgrade for WPSO. This consists of:

Calculator
Calendar
File Manager
Macro/Program Editor
Notebook

and the Shell program which integrates all these with WPSO. There are a couple of other minor goodies as well. The calculator and the calendar are certainly familiar to all of you except that Word Perfect's version of these is very powerful indeed. The File Manager and the Macro/Program Editor are self explanatory.

The Notebook is indeed very handy as is the clipboard which is one of the minor goodies. The Notebook may be used as just that or it may be used as your automatic phone book. By this I mean that if you have the names and numbers entered in the Notebook you may dial them through your modem. That's handy. For example if I am dealing by phone with my stable of brilliant authors, I can dial them from Notebook and simultaneously review the articles that they have written on the screen in Word Perfect.

The clipboard will export any kind of text from any program in the Shell (almost all) to any other (almost). You could for example, type "Death to all tyrants." in WPSO, send it to the clipboard, then download it from the clipboard to the Notebook, as a file to the File Manager or as a reminder on the calendar appointments. Don't let any tyrants catch you at it though.

One more tricky deal with WP 5.0 is the command "initialize printer". Every time any kind of change has been made with respect to printing it is best to type Shft F 7, 7.

DYNAMIC MEMORIES

I wrote the previous two pages with NICEPRINT and Word Perfect 5.0 just to give you an idea of their possibilities. Indeed, to turn out this newsletter I use the following programs:

WP50
FONTASY
NICEPRINT
FIRST PUBLISHER
INSTANT PAGES
PRINTMASTER

These are all on drive D along with a few very necessary files and utilities (command.com, config.sys, ansi.sys and a couple more).

Drive D is set aside as my word processing drive. These programs and the few utilities occupy 12 million bytes and a little more. You can see why it got to the point where I needed two hard disks.

There is no doubt that I will be getting more in the way of desktop publishing programs some time in the future. The thing that looms large in my mind at present is the Hercules RamFont. I can't afford it. In March I hope to go to a VGA system. That won't do a great deal for desktop publishing but it will help my eyes.

On the subject of programs, I have gotten QUICKEN. I have worked with several bookkeepng programs in the past. Most of them gave me a headache and didn't keep MY books. Somebody else's, maybe, but not mine. The only one that worked for me was Tallymaster for the Model 4. Currently I have MoneyCounts 5.0. I have been working with it for some time and would probably have it working efficiently within another 2 months. I'm not critisizing MoneyCounts, it's just that these programs don't come easy for me.

I have a suspicion that that's true of many people because Quicken has had an enormous success, currently rating fifth on PC Magazine's list of best sellers. Quicken is something else. I have worked with it just enough to see that it is going to be no problem, that it is going to be invaluable both on my job and for my domestic budget. And it's easy. I understand it!!!!!!!!!!

Recently on my job, we have taken over the kind of payments that are normally done by a property management firm. Quicken is going to make it easy. We are held up now because the bank has not sent us the printed checks that go with the account. I will then have to send one of these printed checks to Quicken so that they in turn can print out the checks that go with the program. I tested the program with some blank checks that were sent us and was very happy with the results. Once we get going on Quicken I will give you an exhaustive report on it. I'm sure that some of you will be using it in the future.

I also got a Spanish spelling checker from W.P. The disk came in the mail

($60.00). Not a word on how to use it. No *Read.Me* on the disk, nothing. So I don't know how to check my Spanish spelling. Actually Spanish spelling is dead easy. I do have trouble with the orthography-- the accent marks. Once I can get some information from WP on how the Spanish speller works it will be a help to me, not only with any current document, but also when I have to write without the computer. I never studiod Spanish formally, just a second hand grammar, a dictionary that was second hand when I bought it 45 years ago and whatever I could pick up, not always from what are considered the best literary sources. I can't quote from El Cid or Don Quixote, but my swearing is picturesque.

HANDY TRICKS # 1

This one is from PC-Magazine which has a habit of putting out good routines, programs and utilities I like it so much that I have put it in all my major directories. If you'll think about it you'll see how handy it is. It is a bat file, I call it Do.bat. If you decide to use it don't forget to put @echo off on one line and the rest all together on another line. The @ is for MS'DOS 3.3. users.

```
@ echo off
For %%x in (\ %1 % %2 %3 %4) do CD %%
```

WP COMES THROUGH

I got hold of WP Corp. today. Their telephone access has been greatly improved. They have divided the help phones by computers (Apple, Atari, etc. and by types of questions, general, features, etc. I called for my Spanish Speller and got on after the third try. I was told how to access it, simple enough (Shft F8,4,4, ES). It worked but then started to tell me the Spanish dictionary was not on the path. I checked that of course and went through everything to make sure it was right. It was. So, I called back to WP. It took a little longer this time but I made it. The person who answered this time had to go to reference but he finally came through with the setup instructions. That was the part I had been missing. Now all is well and whenever you want your Spanish spelling (No chicano or pocho, please) checked just call on me. I got some more info on the wordstogether syndrome. I had been told this before by WP customer service but hadn't been told and didn't realize all the angles to it. WP has a complicated automatic hyphenation set up. One of the two parameters must be set to 0 when one runs into the wordtogether bug. It is necessary to do it *each* time you begin something new or else do it through the setup program. Oh, I can do that, I said gaily to the support person, thanks, and i hung up. Well I can't do that. I'm just going to have to go through all 3 manuals until I catch on.

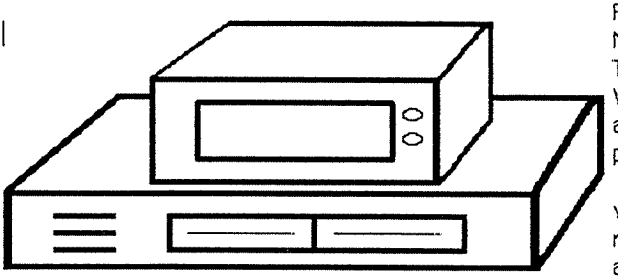
WP50 has some desktop publishing features but I prefer to put out a

DYNAMIC MEMORIES

NOVEMBER

October 20, 1988

In the mail today--catalogs from Radio Shack, from Micro Center and from Best Buys PLUS the November issue of the Computer Shopper featuring "High Speed Multi-User Graphics." All of us routinely receive this sort of thing and we are alternately pleased (when we find something we want) and annoyed (when the junk mail piles up in our post boxes and homes.) I want to go over some of the offers in these catalogs for the commentaries they offer on the current computer scene.



Let us begin with Radio Shack. The catalog/flyer is meant for the general shopper, i.e. it is not directed to me as a computer owner. The cover features Santa Claus, stereo headphones and a flashlight. Several computers are offered inside starting with the 1000 HX. This comes with MSDOS in ROM. This is very handy and saving of disk storage space as well as being quicker. It doesn't say what version of MSDOS it is. Most of us routinely upgrade our version of MSDOS as they appear. You won't be able to do that under the Tandy system.

From the catalog, "Your first program is included-- Personal DeskMate 2. This integrated program uses plain-English menus and dialogue boxes, and features PAINT, MUSIC, TEXT, WORKSHEET and 3 other programs." The price with color monitor is and one 750K floppy is $798.00. Not bad. Not where does it tell you how much RAM is included. Just underneath the ad for the HX is a little box headed "BONUS! Buy the memory plus expansion adaptor and receive DeskMate at no charge.

Expands Tandy 1000 HX/EX to 348K RAM. Speeds up operation with DMA circuit. Allows for addition of another 256K.

DeskMate Bonus! Now with ten applications! Text with spelling checker, Worksheet, Filer and Form Setup, Address book, Calendar, phone accessory, Draw, Hangman and more. [The phone accessory requires a modem--Ed]

The expansion unit costs $149.95. It's not mentioned on that page but you can buy an external 5 1/4 inch drive from Tandy for $169.95. You would thus have a working computer with sufficient software for $1117.90. You could work for the rest of your life with this setup and not spend another nickel. A little

cramped and a little awkward because of the floppy but you could work with it.

Now let us see what you can get in Computer Shopper. Ladies and gentlemen, we have here an advertisement from ULTRA-COMP for the ULTRA TURBO-10 640 PC. And what do we get from the ULTRA TURBO-10? Looky here!

4.77-10 Mhz motherboard Led and Power indicators 640K 120NS 8088-1 CPU 8 expansion slots AT style case AT style keyboard Keyboard lock Reset button 150 Watt power supply 360K floppy disc drive parallel port serial port game port clock/calendar with battery backup 14" Samsung RGB 640x240 monitor

All this for $919 plus shipping and handling. To make it even with the Tandy add a 1.2 Meg floppy for $109. (from the same company of course.) You now have, if my calculator has not betrayed me, $1028. Plus shipping and handling. There is a guarantee of one year, equal to Tandy's.

There is one little problem here. I don't know a thing about Ultra Camp. I have seen, without exaggeration, a hundred of these companies appear and disappear. I will always remember the Ginzu knife. It was guaranteed for life. A year and a half after they started selling them they went into bankruptcy. The Ginzu knife was a good knife. The company made a lot of money on them. Going into bankruptcy was just a ploy. Sales of the once hot item had slowed, the owners weren't interested any more and arranged to file for bankruptcy. The people who bought Ginzu knives are now doing (in some cases) picturesque things with the guarantee.

Nevertheless you can buy the same system setup from Whole Earth Computers in Berkeley. I don't have their ad at hand, but I have seen it. Whole Earth systems have a good reputation, their prices run just about equal to the above and they have been around for some time. Best of all Berkeley is not that far away.

So, what have we gotten with all this? You can't call the Tandy HX a bad buy. Tandy's guarantee is good--from here in San Jose usually a ten day turnaround. If you pick another company be careful that they have some time in the business and that they have a good reputation.

If the HX is a good buy then a similar computer purchased from Whole Earth, Dyna, or Dell is a lot better buy.

Next we have, well, I have, the Special Fall Offers from Mei/Micro Center of 1100 Steelwood Road, Columbus Ohio. They specialize in discounted floppy disks, printer ribbons, disk cases and a few etceteras. Now that I have two hard disks I don't need floppys anymore, that's why I recently purchased 100 floppys and two disk cases from Mei/Micro Center. $25.00 for the

CONTINUED FROM PAGE 2

I strongly suggest that we come to a final, definite decision at the November meeting. We cannot just drift, losing membership like a dead cow in the Amazon river being reduced to a carcass by the tiny, voracious bites of thousands of piranhas.

Whatever may come I have enjoyed the company of all of you, I will miss the club if it does break up. I would be remiss, ungrateful and thoughtless if I didn't thank all of you for many happy hours.

CONTINUED FROM PAGE 9

hundred. I also got two disk cases, $3.95 each. I've used two of the floppies with no problems. Do you remember paying $2.00 and more for these? That takes care of Mei/Micro Center.

Now we come to a catalog called Best Buys from Shoppers' Advantage of Westerville, Ohio. I have a feeling that you're about as familiar with Shopper's Advantage as you are with Westerville, Ohio. (If I have disparaged your wide ranging knowledge of shopping or Ohio, my sincerest apologies.)

This is one of those mail order firms offering every thing from a "Wayne Gretzky hockey set" to a "luxurious blue fox" full length coat, the latter at $1299.00. I suppose that Wayne Gretzky is now in favor with American mail order firms because he moved to Hollywood (or close enough). I suppose also that which of these two items you buy depends on who you know. My instinct would be to send for the luxurious blue fox coat. I know people who like them.

It is a sign of our times that this sort of company also offers computers; a desk top and a portable. In order to continue on the comparison path let's take a look at the desktop. Here I would do best to quote directly from the catalog.

"The Vendex Limited Edition (limited to whom?-Ed) Computer. Performance and Power. (Wow--Ed) The Vendex LTD 'Headstart' computer has 768K RAM memory for running software, two 360 K disk drives, and the entire system runs a turbo, Intel 8088-2 microprocessor operating at 8 or 4.77 Mhz! The LTD has a serial and a parallel port for your modem or printer. And the system includes a 21.3 megabyte hard disk card, a 14 inch RGB monitor, a mouse, a 3-in-one graphics card, the 'Headstart' software kit, and with 7 expansion slots the LTD is a highly flexible machine. A three year manufacturer's warranty and money saving coupons also come with purchase."

You can't fault that price. The catalog company will add a years' guarantee to the manufacturer's guarantee. Of

Of course, all these guarantees leave me worrying about packing and shipping a computer back and forth across the United States. Sadly I must confess my ignorance as to who is Vendex as well as the exact location of Westerville, Ohio. I feel like one of those kids who when asked to put his finger on the globe where China is, puts it on France. If they asked me for Westerville I might even pick Toledo! That's ignorance.

The point and the importance of all this is that a hodgepodge mail order outfit like this finds it worth its time to include computers Everyone wants to get into the act! Welcome to you, Vendex, Shopper's Advantage and Westerville.

PLEASANTON/SAN MATEO SWAP MEETS

by Frank Gottschalk

I am not the world's leading expert on the subject of Swap Meets. Here, nevertheless, I offer my opinions to those of you that have never been to a Swap Meet.

The Pleasanton affair was disappointingly small. It only filled half of a not too large building, much the same as the last Santa Clara Swap I went to. Not being into MS-DOS and Clones, it all looked pretty much like all the other meets. Of course, absolutley nothing for TRS-80's. I was mainly looking for memory chips, and found one sleezy looking, hard sell guy with a good price but was afraid to buy from him. One other, more reputable looking guy's price was way too high.

Still looking for some memory chips, I went to the San Mateo Meet yesterday. Saw Richard Colvin there but he hadn't bought anything yet either. At least it was large enough to have a good variety of merchandise. Of note to me was a vendor with Hayes compatible external Modems for $69. Disappointing however was the huge table reserved for consignments. It had only a few, tiny items on it. This is where I usually have my most fun, looking for useful old stuff. On the up side, I finally found my memory chips! A large,reputable looking display caught my eye. Blessed am I,, there were my 56K-150 memory chips. Happy days! I bought them for $8 each. I will put them in my 2nd Model 4 to make my 1MEG RAMDRIVE.

Other than the specific items mentioned, I find the "Swap Meets" a waste of time for me because I'm only looking for the older stuff. I think those at Foothill College are the most fun.

Editor's note: It seems that the popularity of swap meets is on the wain. They were the province of the hacker, the semi-hacker and the soon to be hacker. All of these still exist, but apparently they are an endangered species. Apropos, how odd it is that newspaper and magazine articles portray the hacker as semi-villianous, semi-lunatic yet to the computer cognoscenti it is a term of respect.

ARD DISK MANAGEMENT-- PART THREE
How To Keep Track of Your Hard Disk
by
Dean Severns

rst let me say that I did try to put the ard Disk Menu program on the club's BS, but the system is temporarily own. However, once it is up I will get e program uploaded to it. Otherwise, k your computing friends, there are a w copies of it floating around.

ow if you have your files all neatly put way in sub- directories, your hard sk should be fairly well organized. So, u may think that your management ities are well under control. AHHHH, it not so, what happens when you guely remember about a small utility ogram that you have somewhere in a bdirectory named 'MISC' short for SCELLANEOUS. When you first put it the hard disk you didn't think you ould use it that much, so you didn't t it on your hard disk menu. But now u urgently need it to complete a port your working on, or worse yet, u get a DISK FULL ERROR. Suddenly en that well organized subdirectory ructure won't help you. You need to nd that file, or delete some unneeded es fast, and I mean FAST! No time for ping away at a DOS 'C:>' prompt. You ed a program that quickly displays ur directories and allows you to mply highlight a file and either run, py, or delete it.

ere are quite a few of these programs und, such as QuickDOS, XTree, Tools, some quick and dirty public domain programs, also the new "environments" like Windows, DOS 4.0, and OS/2 have these features built in.

So now you are supposed to ask, how do these programs make file management so fast?. The one 'key' that all these programs have in common is what the Macintosh world calls "point and click." By simply moving a highlight bar around your directory listing to "point" at the file(s) you want to manipulate and "clicking" a key or the button of your mouse, you can easily run, copy, or delete the file(s). Point and Click is much easier than having to type the all too familiar commands like DIR, DEL xxxx.xxx, and COPY xxxx.xxx at the DOS prompt. This procedure is a little hard to show in a newsletter article, but I am sure that everyone has used some program where the arrow keys were used to move a highlighted cursor around the screen and press the ENTER key to select the highlighted item.

Now that we have our subdirectories staring at us, you can go through the disk and either copy or delete files that don't really need to be on the hard disk. In order to free up space, files can be selectively copied to floppies for storage or just erased.

For example, your LOTUS 1-2-3 subdirectory has a lot of the work sheets with the extension xxxx.WK1 mixed in with the other files needed to run 123. A simple:

COPY * WK1 to A: DEL * .WK1

would move all of the work sheets to floppys. But what if you wanted to keep the ones you update everyday? Tough luck. You are stuck with typing the filenames of all the work sheets you want to move around. However, by using the point and click method of the file management programs you could selectively highlight just the files to delete or move to floppy diskette, thus saving a considerable amount of typing and time.

Routinely backing up your data to floppies will give you some hard-disk-crash insurance and erasing un-needed files will free up space for that all important report you were working on at the beginning of this article.

SPEEDDDDDDD

Speed is something we usually never get enough of. If you have just recently installed a hard disk in your machine, you are probably still trying to get used to its blazing speed. But, as you begin to get used to the disk's speed and fill it with all your programs, you sometimes find yourself waiting for your favorite program to load or your database to finish its search. Where has the blazing speed gone? You wonder what happened. Has your disk gotten slower with age? Fortunately, it is not the disk itself, but the way DOS stores your files on the disk.

When you save a file to disk DOS starts putting in the first free space it comes to. If the space is not big enough it will put the rest of the file in the next first free space. This results in the file being spread over more than one continuous block on the disk. This is called fragmentation, and causes DOS to take longer to find all the parts of the file when reading it into memory. The problem is compounded when one is faithful and deletes those un-needed files to free up space. Every time a small file was deleted it freed up a small block of space near the "front" of the disk. The next large file to be saved was then spread around to all those small spaces.

The solution to all of this is called of all things a "Disk Optimizer." The optimizer goes through the entire disk and puts the fragmented files back together again. Then when you load that long program, DOS finds it all in one place and reads it much faster. Joel Lee gave us a demonstration of PCTools Plus' optimization feature at the last club meeting. This latest version runs much faster than previous versions and took less than 5 minutes to optimize his disk. Of course the larger the level of fragmentation, the longer it will take to sort through the entire disk. As an example, it typically takes about half an hour for the old version of PCTools to optimize my 20MB drive. Now I have told you everything I do to get the most from my hard disk. However I still sometimes wish it had more space and only a 28msec access time instead of 65msec. But that is what Christmas is for RIGHT? I only

hope that my loved ones remember this at the appropriate time.

Buying, Using, and Optimizing the Hard Disk by Lewis Perdue Second in a three part series from Bay Area Computer Currents Aug.23 - Sep. 5, 1988

The large amount of data that can be stored on a hard disk and the attendant danger of crashes puts an additional administrative chore on you that does not exist with floppies: backup.

The backup of hard disks is most commonly done to floppy disks since this is the alternative most commonly available to PC users. Hard disks can also be backed up to other hard disks or to streaming tape drives, a method that is rapidly gaining in popularity and dropping in price. Because of the expense and the limited storage space, back up to another hard disk is rarely practical. Using the backup utility software provided with PC or MS-DOS, it takes about an hour and 28 floppy disks to backup ten megabytes of hard disk data. There are faster backup utilities (such as BackEZ from EZLogic of Los Altos, CA.) available but it still takes 28 floppies. Streaming tape, which uses a variety of cassette and cartridge sizes, is a more convenient method of backing up your hard disk.

Another downside of using a hard disk is disk maintenance. Because of the manner in which PC/MS-DOS stores files on the hard disk, it's possible for a large file -- such as a frequently used database -- to be spread out all over your disk -- a situation known as file fragmentation. Fragmentation will slow down data- base searches drastically. You will periodically need to use utility software (such as Disk Optimizer from SoftLogic Solutions of Manchester, N.H. or PCTools) to clean up this mess and to have each file stored on contiguous sectors on your disk.

Likewise, there is an initial hard disk. This can quickly fill up the space. Even 20 megabytes can go quickly when you have two or three software programs taking up one to three megabytes of space. Graphics or desktop publishing software is usually the worst offender because of the programming complexity required. A program like Graphwrite occupies about 2.5 megabytes just for the program; a single scanned PC Paintbrush Image could eat up an entire megabyte; and the newest edition of Lotus 1-2-3, version 2.01, requires a little more than 1.4 megabytes just to load the software. For this reason, you will need to periodically go through your files, copy the less-frequently used ones onto floppies, and delete them from the hard disk.

Selecting The Hard Disk

TO BE CONTINUED NEXT MONTH

South Bay TRS-80 Users Group
P.O. Box 60116
Sunnyvale, Ca 94088

FIRST CLASS MAIL